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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/964,874
Filing Date: September 28, 2001
Appellent(s): SUZUKI ET AL.

EXAMINER'S ANSWER

Joseph L. Felber

For Appellant

This is in response to the appeal brief filed 12/20/2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 10-13 and 24-27 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

JP 10-283,645	Otsuka	10-1998
JP 08-306,052	Tsuchimochi	11-1996
4,507,767	Takasugi	03-1985
5,276,697	Davis	01-1994
5,566,077	Kulakowshki et al	10-1996
5,699,333	Tsutsui	12-1997
6,567,350	Takagi et al	05-2003

(10)-1 Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims (as argued by appellant).

Claim 24 is rejected under 35 U.S.C. 102 (e) as anticipated by JP 10-283,645

The system depict in this environment the ability of having a temperature detector and function recited, as well as the ability of resetting, by use of appropriate control elements, integrated/supervised by a controller (microcomputer, etc.) the claimed offset value (either focus or tracking).

THE FOLLOWING EXPANDED ANALYSIS IS PRESENTED:

Claim 24	**JP 10-283,645**
An optical disk drive comprising:	see title & abstract
an internal temperature of the optical disk drive;	element 3A, as per paragraph 23 of the MAT
and	
a controller for setting a focus offset value and/or a tracking offset value,	element 15, as per paragraphs 23-25 in the MAT
wherein the controller sets a focus offset and/or tracking offset value at startup of the optical disk drive, determines whether or not a difference between a temperature measured by the temperature sensor at startup of the optical disk drive and a temperature measured by the temperature sensor after startup of the optical disk drive has exceeded a predetermined level, and resets the focus offset value and/or the tracking offset value when the difference is determined to have exceeded the predetermined level.	see description with respect to paragraphs 26-33 in the MAT

(11)-1 Response to Argument

Appellants' argue on page 7 of their brief:

a) claim 24 recites a controller and that:

1) sets a focus offset value and/or tracking offset value at startup of the optical disk drive .... and resets the focus offset value and/or the tracking offset value when ...

The examiner has not provided any such showing.

r-1) The examiner regrets any inconvenience to applicants in his inability to articulate such a showing, nevertheless the examiner did provide applicants a copy of the above noted JP 10-283,645 and MAT (machine assisted translation) of such a document.

As further analyzed above, in JP 10-283,645 paragraphs 23 till paragraph 27 supports the above position with respect to the tracking offset. Because the claim is written in the alternative, i.e., focus offset and/or tracking offset, and the tracking offset is present, the claimed limitations are considered present and met.

The above noted passages indicate that a temperature difference is detected. It appears that the temperature sensor, which measures the temperature of the device after start up, accomplishes this with a preliminary set temperature. The examiner interprets this preliminary set temperature as meeting the (first) claimed temperature at startup, because a sensor must measure such a preliminary temperature.

(10)-2 Grounds of Rejection

- CONTINUED ON NEXT PAGE ----

The following ground(s) of rejection are applicable to appealed claims 10 & 11.

Claims 10-11 are rejected under 35 USC 103 (a) as being unpatentable over Kulakowski et al further considered with either Tsutsui or JP 08-306052.

Kulakowski et al teach in this environment the ability of having operational parameters set/established for initial set up – see the discussion with respect to figures 7 & 8, mode set up and default values.

Furthermore, Kulakowski et al also provide for various sensors, see col. 2 lines 60 plus.

Although various values are re-set, there is no specific mentioning of focus offset.

Either of the secondary references to Tsutsui of the above noted JP document (see the abstract thereof for instance) teaches in this environment the additional ability of correction/compensating for focus offset during temperature variations.

It would have been obvious to modify the base system of Kulakowski et al with the above teaching from either of the secondary references; motivation is to ensure proper system operation during variations in temperature.

Applicant as argued on 4/5/04,

a) there is no "resetting means" with respect to the "internal temperature of the disc drive" ,

b) the limitations of claim 11, focusing on the resetting ability with respect to the most recently measured temperature is also not found.

The examiner response to such in the final rejection as;

r-a) In Kulakowski et al, see col. 2 line 1 to col. 4 line 63 with respect to argument a above, and that a reference is evaluated for all that it teaches/discloses – see ***In re Bode et al, 193 USPQ 12.***

r-b) In Kulakowski et al, see col. 5, line 62 to col. 6 line 48, wherein the temperature is measured at various times (poll) and hence the most recent temperature is what establishes any need for correction, and hence the resetting of the previous established value is accomplished.

THE FOLLOWING EXPLODED ANALYSIS IS PRESENTED:

Claim 10	**Kulakowski**
An optical disk drive comprising:	see title and abstract
setting means for setting a focus offset value and/or a tracking offset value at startup of the optical disk drive;	see col. 2 line 61 till col. 3 line 16, the microprocessor is interpreted as such a device
first temperature measurement means for measuring an internal temperature of the optical disk drive at startup of the optical disk drive;	see col. 5, lines 3-26, element 12
second temperature measurement means for measuring an internal temperature the optical disk drive after startup of the optical disk drive;	see col. 5, lines 3-26, element 14
determination means for determining whether or not a difference between the temperature measured by the second temperature measurement means and the temperature measured by the first temperature measurement means has exceeded a predetermined level;	inherently present, see col. 5 line 27 to col. 6 line 48. Interpreted as part of the microprocessor
and	
resetting means for resetting the focus offset value and/or the tracking offset value set by the setting means when the determination means determines that the difference has exceeded the predetermined level.	inherently present, operation of microprocessor in reestablishing new operational parameters.

In the above Kulakowski et al system, the effects of temperature variations on disc drives is acknowledged. The examiner has interpreted the disclosure at col. 5 lines 3-17 as meeting the claimed determination means and function, i.e., when the measured temperature exceeds a first threshold. There must be a determination between two values in order to yield a conclusion that there is a difference. Although the threshold is not clearly defined, the examiner concludes that this is a first temperature established apriority by measuring a temperature of the system. Hence the examiner considers the threshold as meeting the claimed limitations with respect to the first measured temperature.

There is no clear depictions of resetting either focus or tracking offsets.

Tsutsui teaches at col. 1 line 38- 46 describe the effects of temperature upon offsetting servoing, focusing errors as well.

JP 08-306052 teaches the ability of having focus offset abilities responsive to temperature variations, see paragraph 29-39 of the MAT of this document.

(11)-2 Response to Arguments

Appellant's arguments on pages 8-10 of the brief focus on:

a) no focus offset ability provided for in Kulakowski et al

b) no reasons why such a reaction to temperature variations would be desirable in the Kulakowski et al system that already reacts to certain operations.

c) Claim 11 depends upon claim 10 and should be allowable for the reasons of its dependency.

d) Claim 11 further defines requires that the determining means

"difference between a temperature most recently measured .... and an immediately preceding temperature...". Not withstanding the above noted passages in Kulakowski et al, the "most recent temperature measurement" is not processed with the "immediately preceding temperature".

r-a) The rejection is based under 35 USC 103. The rejection identifies that the Kulakowski et al system lacks focus offset correction ability predicated upon temperature measurements.

Tsutsui teaches at the above noted passages the effects upon focus and track servoing.

JP 08-306052 also acknowledges – see the abstract of the MAT (machine assisted translation) the effects of temperature and focusing in optical systems – see paragraphs 29-39 of the MAT.

r-b) The examiner maintains that the references as a whole would lead one of ordinary skill in the art to meet the claimed limitations so as to correct for the effects of temperature variations, as recognized by all the secondary references upon focusing and track servoing, and hence lead one of ordinary skill in the art to include such in the Kulakowski et al system so as to provide for appropriate compensation of these system parameters and yield a properly operating system. The examiner concludes that this follows from the references and that under 35 USC 103 considerations render the claim subject matter met.

r-c) Dependent claim 11 falls with its parent claim.

r-d) The examiner interprets the operation of the above noted passages in the Kulakowski et al reference (as well as the disclosure starting at col. 6 line 16 to col. 8 line 54) and as noted in col. 6 lines 7-15 and col. 8 lines 30-49 as teaching measuring the difference between temperature parameters. The examiner concludes that this describes an operation in which the difference between the most recent temperature value and an immediately preceding temperature (which is variable set during a mode of operation) is performed.

(10)-3 Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims 12-13 and 26-27:

Claims 12-13 and 26-27 are rejected under 35 USC 103 (a) as obvious over Kulakowski et al further considered with either Takasugi or Davis.

Kulakowski et al is relied upon for the reasons stated above with respect to claims 10-11.

Either Takasugi or Davis, teach the additional ability of predicating corrections upon the output of the light emitting section as in Takasugi – see the discussion commencing at col. 1 lines 57-68, or as in Davis – see description with respect to figure 1 element 15.

It would have been obvious to modify the base system of Kulakowski e al with the above noted teachings from either of the secondary references, motivation is to appropriately compensate the laser output for temperature variations.

As further noted in the final rejection, Kulakowski dynamically varies the duty ratio of the laser drive. Hence such dynamic variation does control (resets) the output of the laser because such variation (duty cycle) controls the final laser output (on, off). As interpreted by the examiner the limitation, focusing upon controlling/resetting the laser output is then met.

The references as a whole teach the ability to compensate for the same problem – see decision/ citation in section (10)-2 above.

Since the primary reference acknowledges disturbances in operational temperature(s) cause(s) problems with the system operating correctly, and that either/both of the secondary references further

teach compensation for temperature variations, the combination of references as a whole meet the claimed limitations.

THE FOLLOWING EXPLODED ANALYSIS IS PRESENTED:

Claim 12	**Kulakowski et al**
An optical disk drive comprising:	see title and abstract
setting means for setting a laser output value of a light-emitting section, a laser being output from the light-emitting section for recording and/or reproducing data on and/or from an optical disk, at startup of the optical disk drive;	see col. 2 line 61 till col. 3 line 16, the microprocessor is interpreted as such a device
first temperature measurement means for measuring an internal temperature of the optical disk drive at startup thereof;	see col. 5, lines 3-26, element 12
second temperature measurement means for measuring an internal temperature of the optical disk drive after startup thereof;	see col. 5, lines 3-26, element 14
determination means for determining whether or not a difference between the temperature measured by the second temperature measurement means and	inherently present, see col. 5 line 27 to col. 6 line 48. Interpreted as part of the microprocessor

the temperature measured by the first temperature measurement means has exceeded a predetermined level; and resetting means for resetting the laser output value set by the setting means when the determination means determines that the difference has exceeded the predetermined level.	inherently present, operation of microprocessor in reestablishing new operational parameters

As noted in col. 5 lines 3-18, the system of Kulakowski et al varies the duty ratio of the output signal from the laser.

Takasugi in col. 1 lines 57-68 teach appropriate control of the laser and hence its output value predicated upon monitoring the laser appropriately.

Davis in figure 1 and its description of element 15 depicts appropriate monitoring of the laser temperature and appropriate feed back control thereto.

It would have been obvious to modify the base system of Kulakowski et al with either of the above teachings, motivation is to compensate for variations of the laser temperatures and reset the laser output in response thereto.

Claim 26	**Kulakowski et al**
An optical disk drive, comprising:	see title and abstract
a temperature sensor for sensing an internal temperature of the optical disk drive; and	sensors 12-14,and col. 5 lines 3-19
a controller for setting a laser output value	controller 40

of a light-emitting section, a laser being output from the light-emitting section for recording and/or reproducing data on and/or from an optical disk, wherein	see col. 6 lines 3-48
the controller sets the laser output value at startup of the optical disk drive, determines whether or not a difference between a temperature measured by the temperature sensor at startup of the optical disk drive and a temperature measured by the temperature sensor after startup of the optical disk drive has exceeded a predetermined level, and resets the laser output value when the difference is determined to have exceeded the predetermined level.	see above description in col. 6 lines 3-48

(11)-3 Response to Argument

Appellant's arguments on pages 11-13 of his brief focus on:

a-1) claim 12 recites

"resetting means for resetting the laser output value set by the setting means when the determination means determines that the difference has exceeded the predetermined level".

a-2) and that Kulakowski et al does not provide resetting the laser output value when the difference between two specified temperatures have exceeded a predetermined level.

b) The examiner has failed to identify a suitable suggestion in either of the secondary references.

c) The cited passage in Takasugi fails to discuss the resetting of a laser when the difference between two specified temperatures has been exceeded.

d) Claim 13 depends from clam 12.

e) Claim 26 includes a controller that

" ... resets the laser output value when the difference (between two specified temperatures) is determined to have exceeded the predetermined level".

f) Claim 27 depends from claim 26.

g) Claims 13 and 27 respectively describe a determination means and function thereof, and a controller and the function thereof, wherein these elements determine a difference between a temperature most recently measured and an immediately preceding measured temperature has exceeded a predetermined level, and no showing of such has been provided.

r-a) See claim 12 as noted above, wherein the determination means describes the difference requirement.

r-b) The passage in Takasugi has been provided.

r-c & e) Under 35 USC 103 considerations, it is not the physical insertion of elements of one reference into another that should be focused on, but rather what the teachings of both provide.

In the above combination, the Kulakowski et al reference provides for appropriate duty ratio variation(s) of the laser source as a result of the appropriate determination.

Takasugi provides for control of the laser output in response to monitoring of the laser for appropriate control. Further impact of duty ratio and power is described at col. 5 commencing at line 17 of Takasugi.

Davis as further elaborated in col. 2 line 48 to col. 3 line 10 describes the impact of laser temperature with respect to driving a laser output.

The secondary references were not relied upon to describe measuring a difference between two specified temperatures. They were relied upon for teaching the control of the laser output predicated upon the monitored conditions. Hence, the invention as a whole is considered met by the above combination of references as motivation to so combine is predicated upon controlling the laser in order to compensate for negative impacts due to temperature variations.

r-d&f) Dependent claims fall with their respective parent claim.

r-g) The examiner interprets the operation of the Kulakowski et al reference as described starting at col. 5 line 27 and continuing to col. 6 line 48 as well as the disclosure starting at col. 6 line 16 to col. 8 line 54 and as further noted in col. 6 lines 7-15 and col. 8 lines 30-49 as so meeting this requirement. The examiner interprets the above as teaching an operation in which the differences between the most recent temperature value and an immediately preceding temperature (which is variable set during a mode of operation) is performed.

(10)-4 Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claim 25:

Claim 25 is rejected under 35 USC 103 (a) as being obvious over JP 10-283,645 further considered with either Kulakowski et al or Takagi et al.

With respect to claim 25, although the controller/microprocessor in JP 10-283,645 provides for the appropriate control of the overall system, there is no clear description with respect to detecting the variations in temperature for a plurality of times so as to yield the limitations focusing on the most recently measured valued.

The Kulakowski et al system is interpreted as providing system operation control over different periods of time and hence providing for the "most recently" measured limitation, see col. 5 line 27 to col. 6 line 48 in Kulakowski et al. The examiner interprets the last polling event as meeting the most recent limitation.

Alternatively, Takagi et al at column16 line 7-60 describes a continuous measuring ability with respect to the temperature of the disc system (optical head) and provide for appropriate control thereof.

Hence the last provided feedback is the most recently measured temperature, and the immediate preceding one is the immediate preceding measured limitation.

It would have been obvious to modify the base system of JP 10-283,645 with the teaching from either of the above secondary systems, motivation is to provide a continuous feedback and hence provide for a dynamically controlled system.

THE FOLLOWING EXPLODED ANALYSIS IS PRESENTED:

Claim 25: The optical disk drive according to claim 24,		see above analysis with respect to Claim 24 and the base reference JP 10-283,645.
	Kulakowski	Takagi
wherein the controller measures the temperature detected by the temperature sensor at given times, determines whether or not a difference between a most-recently measured temperature and a measured temperature immediately preceding the most-recently measured temperature has exceeded a predetermined level, and resets a set focus offset value and/or a set tracking offset value when the difference is determined to have exceeded a predetermined value.	col. 5 line 27 to col. 6 line 48	col. 16 lines 7-60

(11)-4 Response to Argument

Appellant's arguments as found on pages 14-15 focus on:

a) claim 25 requires the controller to determine a difference between the most recently measured temperature and the immediately preceding measured temperature, and as such it is not taught by the Takagi reference.

r-a) The examiner interprets the operation of the above noted passages in the Kulakowski et al reference (as well as the disclosure starting at col. 6 line 16 to col. 8 line 54) and as noted in col. 6 lines 7-15 as well as col. 8 lines 30-49.

The examiner concludes that this describes an operation in which the difference between the most recent temperature value and an immediately preceding temperature (which is variable set during a mode of operation) is performed.

Also, the examiner interprets the above disclosure of Takagi et al at col. 16 lines 7-60 to also Describe an operation in which the difference between the most recent temperature value as well as an Immediately preceding temperature is performed.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

AMP
February 17, 2005

Conferees

H. Nguyen 2/17/05
D. Ometz 2/18/05
T. Tran 2/17/05

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006